FCS3-328

COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF KENTUCKY • COLLEGE OF AGRICULTURE

# Selecting, Preparing & Canning Vegetables & Vegetable Products

**Featuring new, research-based recommendations for safer and better quality food at home**

AGRICULTURE & NATURAL RESOURCES • FAMILY & CONSUMER SCIENCES
4-H/YOUTH DEVELOPMENT • RURAL & ECONOMIC DEVELOPMENT

## Know Your Altitude

It is important to know your approximate elevation or altitude above sea level in order to determine a safe processing time for canned foods. Since the boiling temperature of liquid is lower at higher elevations, it is critical that additional time be given for the safe processing of foods at altitudes above sea level.

All towns and communities in Kentucky are below 2,000 feet. The processing times given in this canning guide are for altitudes up to 3,000 feet and are safe for all parts of our state.

## DANGER!

## Guard Against Food Poisoning

Pressure canning is the only recommended method for canning meat, poultry, seafood, and most vegetables. The bacterium *Clostridium botulinum* in low-acid foods is destroyed when they are processed at the correct time and pressure in pressure canners. Using boiling-water canners for these foods poses a real risk of botulism poisoning.

If these bacteria survive and grow inside a sealed jar of food, they can produce a poisonous toxin. Even a taste of food containing this toxin can be fatal. Low-acid foods should be boiled after their jars are opened, even if you detect no signs of spoilage and are certain the food has been properly processed. In Kentucky, boiling for 13 minutes destroys the toxin that causes poisoning.

This guide, containing up-to-date instructions for preparing safe home-canned foods, is based on research conducted at the Pennsylvania State University. It is adapted from the USDA Complete Guide to Home Canning.

**Other publications in the home-canning series include:**

- FCS3-121, *Canning Tomatoes and Tomato Juice*
- FCS3-325, *Principles of Home Canning*
- FCS3-326, *Selecting, Preparing, and Canning Fruit and Fruit Products*
- FCS3-327, *Selecting, Preparing, and Canning Tomatoes and Tomato Products*
- FCS3-329, *Preparing and Canning Poultry, Red Meat, and Fish*
- FCS3-330, *Preparing and Canning Fermented Foods and Pickled Vegetables*
- FCS3-331, *Preparing and Canning Jams and Jellies*

These publications are also available on our web site at:
http://www.ca.uky.edu/agc/pubs/pubs.htm

*No product endorsement is implied, nor discrimination against similar products intended, by the mention of brand names in this publication.*

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# Introduction to the Complete Guide to Home Canning

Home canning has changed greatly in the 170 years since it was introduced as a way to preserve food. Scientists have found ways to produce safer, higher quality products. The first part of this series explains the scientific principles on which canning techniques are based, discusses canning equipment, and describes the proper use of jars and lids. It describes basic canning ingredients and procedures and how to use them to achieve safe, high-quality canned products.

The remaining publications in this series consist of canning guides for specific foods. These guides offer detailed directions for canning fruits and fruit products, tomatoes and tomato products, vegetables, red meats, poultry and fish, pickles and relishes, and jams and jellies. Handy guidelines for choosing the correct quantity and quality of raw foods accompany each set of directions for fruits, tomatoes, and vegetables. Most recipes are designed to yield a full canner load of pints or quarts.

This publication contains many new research-based recommendations for canning safer and better quality food at home. It is an invaluable resource for persons who are canning for the first time. Experienced canners will find updated information to help them improve their canning practices.

# Asparagus, *spears or pieces*

QUANTITY:
An average of 24½ pounds of asparagus is needed per canner load of 7 quarts; an average of 16 pounds is needed per canner load of 9 pints. A crate weighs 31 pounds and yields 7 to 12 quarts—an average of 3½ pounds per quart.

QUALITY:
Use tender, tight-tipped spears, 4 to 6 inches long.

PROCEDURE:
Wash asparagus and trim off tough scales. Break off tough stems and wash again. Cut into 1-inch pieces or can whole.

Hot pack—Cover asparagus with boiling water. Boil 2 to 3 minutes. Loosely fill jars with hot asparagus, leaving 1 inch of headspace. Add one teaspoon of salt per quart to the jar, if desired. Add boiling water, leaving 1 inch of headspace.

Raw pack—Fill jars with raw asparagus, packing as tightly as possible without crushing, leaving 1 inch of headspace. Add 1 teaspoon of salt per quart to the jar, if desired. Add boiling water, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:

- *Dial-gauge Pressure Canner*—Hot or Raw Pack: process pints for 30 minutes or quarts for 40 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot or Raw Pack: process pints for 30 minutes or quarts for 40 minutes at 15 pounds of pressure.

# Beans, *baked*

PROCEDURE:
Soak and boil beans. Prepare molasses sauce according to directions for "Beans, dried, with tomato or molasses sauce," on page 4 of this guide. Place seven ¾-inch pieces of pork, ham, or bacon in an earthenware crock, a large casserole, or a pan. Add beans and enough molasses sauce to cover. Cover and bake 4 to 5 hours at 350°F. Add water as needed—about every hour. Fill jars, leaving 1 inch of headspace. Adjust lids and process as for "Beans, dried, with tomato or molasses sauce," on page 4 of this guide.

# Beans, dried, *with tomato or molasses sauce*

QUANTITY:
An average of 5 pounds of beans is needed per canner load of 7 quarts; an average of 3⅓ pounds is needed per canner load of 9 pints.

QUALITY:
Select mature, dried beans. Sort out and discard discolored beans.

PROCEDURE:
Sort and wash dry beans. Add 3 cups of water to each cup of dried beans. Boil 2 minutes, remove from heat, soak 1 hour, and drain. Heat to boiling in fresh water; reserve liquid for making sauce. Prepare one of the following sauces:

*Tomato Sauce* – Either mix 1 quart tomato juice, 3 tablespoons sugar, 2 teaspoons salt, 1 tablespoon chopped onion, and ¼ teaspoon each of ground cloves, allspice, mace, and cayenne pepper. Heat to boiling.

Or, mix 1 cup of tomato ketchup and 3 cups of the cooking liquid from the beans. Heat to boiling.

*Molasses Sauce* – Mix 4 cups water or cooking liquid from beans, 3 tablespoons dark molasses, 1 tablespoon vinegar, 2 teaspoons salt, and ¾ teaspoon powdered dry mustard. Heat to boiling.

Fill jars three-fourths full with hot beans. Add a ¾-inch cube of pork, ham, or bacon to each jar, if desired. Fill jars with heated sauce, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 65 minutes or quarts for 75 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process pints for 65 minutes or quarts for 75 minutes at 15 pounds of pressure.

## Beans, fresh lima, *shelled*

QUANTITY:
An average of 28 pounds of lima beans is needed per canner load of 7 quarts; an average of 18 pounds is needed per canner load of 9 pints. A bushel weighs 32 pounds and yields 6 to 10 quarts—an average of 4 pounds per quart.

QUALITY:
Select well-filled pods with green seeds. Discard insect-damaged and diseased seeds.

PROCEDURE:
Shell beans and wash thoroughly.

Hot pack—Cover beans with boiling water and heat to boil. Fill jars loosely, leaving one inch of headspace. Add 1 teaspoon of salt per quart, if desired. Add cooking liquid or boiling water, leaving 1 inch of headspace.

Raw pack—Fill jars with raw beans. Do not press or shake down. With small beans, leave 1 inch of headspace for pints and 1½ inches for quarts. With large beans, leave 1 inch of headspace for pints and 1¼ inches for quarts. Add 1 teaspoon of salt per quart to the jar, if desired. Add boiling water, leaving the headspaces listed above. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot or Raw Pack: process pints for 40 minutes or quarts for 50 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot or Raw Pack: process pints for 40 minutes or quarts for 50 minutes at 15 pounds of pressure.

## Beans or Peas, all varieties, *shelled, dried*

QUANTITY:
An average of 5 pounds of beans or peas is needed per canner load of 7 quarts; an average of 3⅓ pounds is needed per canner load of 9 pints.

QUALITY:
Select mature dried beans or peas. Sort out and discard discolored beans or peas.

PROCEDURE:
Place dried beans or peas in a large pot and cover with water. Soak 12 to 18 hours in a cool place. Drain. (To quickly hydrate beans, cover sorted and washed beans with boiling water. Boil 2 minutes, remove from heat, soak 1 hour and drain.) Cover beans soaked by either method with fresh water and boil 30 minutes. Add 1 teaspoon of salt per quart to the jar, if desired. Fill jars with beans or peas and cooking water, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 75 minutes or quarts for 90 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process pints for 75 minutes or quarts for 90 minutes at 15 pounds of pressure.

# Beans, snap

QUANTITY:
An average of 14 pounds of beans is needed per canner load of 7 quarts; an average of 9 pounds is needed per canner load of 9 pints. A bushel weighs 30 pounds and yields 12 to 20 quarts—an average of 2 pounds per quart.

QUALITY:
Select filled but tender, crisp pods. Remove and discard diseased and rusty pods.

PROCESSING TIME:
Wash beans and trim ends. Leave whole, or cut or snap into 1-inch pieces.

Hot pack—Cover with boiling water; boil 5 minutes. Fill jars loosely, leaving 1 inch of headspace. Add 1 teaspoon of canning salt per quart to the jar, if desired. Add boiling water, leaving 1 inch of headspace.

Raw pack—Fill jars tightly with raw beans, leaving one inch of headspace. Add 1 teaspoon of canning salt per quart to the jar, if desired. Add boiling water, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot or Raw Pack: process pints for 20 minutes or quarts for 25 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot or Raw Pack: process pints for 20 minutes or quarts for 25 minutes at 15 pounds of pressure.

# Beets, *whole, cubed or sliced*

QUANTITY:
An average of 21 pounds of beets (without tops) is needed per canner load of 7quarts; an average of 13½ pounds is needed per canner load of 9 pints. A bushel (without tops) weighs 52 pounds and yields 15 to 20 quarts—an average of 3 pounds per quart.

QUALITY:
Beets with a diameter of 1 to 2 inches are preferred for whole packs. Beets larger than 3 inches in diameter often are fibrous.

PROCESSING TIME:
Trim off beet tops, leaving 1 inch of stem and roots to reduce bleeding of color. Scrub well. Cover with boiling water. Boil until skins slip off easily, about 15 to 25 minutes depending on size. Cool, remove skins, and trim off stems and roots. Leave baby beets whole. Cut medium or large beets into ½-inch cubes or slices. Halve or quarter large slices. Add 1 teaspoon of salt per quart to the jar, if desired. Fill jars with beets and fresh hot water, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 30 minutes or quarts for 35 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process pints for 30 minutes or quarts for 35 minutes at 15 pounds of pressure.

# Carrots, *sliced or diced*

QUANTITY:
An average of 17½ pounds of carrots (without tops) is needed per canner load of 7 quarts; an average of 11 pounds is needed per canner load of 9 pints. A bushel (without tops) weighs 50 pounds and yields 17 to 25 quarts—an average of 2½ pounds per quart.

QUALITY:
Select small carrots, preferably 1 to 1¼ inches in diameter. Larger carrots often are too fibrous.

PROCEDURE:
Wash, peel, and rewash carrots. Slice or dice.

Hot pack—Cover carrots with boiling water; bring to a boil and simmer for 5 minutes. Fill jars, leaving 1 inch of headspace. Add 1 teaspoon of salt per quart to the jar, if desired. Add hot cooking liquid or water, leaving 1 inch of headspace.

Raw pack—Fill jars tightly with raw carrots, leaving 1 inch of headspace. Add 1 teaspoon of salt per quart to the jar, if desired. Add hot water, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot or Raw Pack: process pints for 25 minutes or quarts for 30 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot or Raw Pack: process pints for 25 minutes or quarts for 30 minutes at 15 pounds of pressure.

## Corn, *cream style*

QUANTITY:
An average of 20 pounds of sweet corn (in husks) is needed per canner load of 9 pints. A bushel (in husks) weighs 35 pounds and yields 12 to 20 pints—an average of 2¼ pounds per pint.

QUALITY:
Select ears containing slightly immature kernels or those of ideal quality for eating fresh.

PROCEDURE:
Husk corn, remove silks, and wash ears. Blanch ears 4 minutes in boiling water. Cut corn from cobs at about the center of kernel. Scrape remaining corn from cobs with a table knife.

Hot pack—Add 2 cups of boiling water to each quart of corn and scrapings. Heat to boiling. Add ½ teaspoon of salt per pint to the jar, if desired. Fill pint jars with hot corn mixture, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 85 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process pints for 85 minutes at 15 pounds of pressure.

## Corn, *whole kernel*

QUANTITY:
An average of 31½ pounds of sweet corn (in husks) is needed per canner load of 7 quarts; an average of 20 pounds is needed per canner load of 9 pints. A bushel (in husks) weighs 35 pounds and yields 6 to 11 quarts—an average of 4½ pounds per quart.

QUALITY:
Select ears containing slightly immature kernels or those of ideal quality for eating fresh. Canning of some sweeter varieties or of too immature kernels may cause browning. Can a small amount; check color and flavor before canning large quantities.

PROCEDURE:
Husk corn, remove silks, and wash ears. Blanch 3 minutes in boiling water. Cut corn from cobs at about three-fourths the depth of kernel.
***CAUTION: Do NOT scrape cobs.***

Hot pack—Add 1 cup of hot water to each clean quart of kernels. Heat to boiling and simmer 5 minutes. Add 1 teaspoon of salt per quart to the jar, if desired. Fill jars with corn and cooking liquid, leaving 1 inch of headspace.

Raw pack—Fill jars with raw kernels, leaving 1 inch of headspace. Do not shake or press down. Add 1 teaspoon of salt per quart to the jar, if desired. Add fresh boiling water, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot or Raw Pack: process pints for 55 minutes or quarts for 85 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot or Raw Pack: process pints for 55 minutes or quarts for 85 minutes at 15 pounds of pressure.

# Mixed Vegetables

**6 cups sliced carrots**
**6 cups cut, whole kernel sweet corn**
**6 cups cut green beans**
**6 cups shelled lima beans**
**4 cups whole or crushed tomatoes**
**4 cups diced zucchini**

OPTIONAL MIX —You may change the suggested proportions or substitute other favorite vegetables, except leafy greens, dried beans, cream-style corn, winter squash, and sweet potatoes.

YIELD:
7 quarts.
PROCEDURE:
Wash and prepare vegetables, except zucchini, in the manner described for each in this guide and also in FCS3-327, *Selecting, Preparing, and Canning Tomatoes and Tomato Products*. Wash, trim, and slice or cube zucchini.

Combine all vegetables in a large pot or kettle; add water to cover. Boil 5 minutes. Add 1 teaspoon of salt per quart to the jar, if desired. Fill jars with hot pieces and liquid, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 75 minutes or quarts for 90 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process pints for 75 minutes or quarts for 90 minutes at 15 pounds of pressure.

# Mushrooms, *whole or sliced*

QUANTITY:
An average of 14½ pounds of mushrooms is needed per canner load of 9 pints; an average of 7½ pounds is needed per canner load of 9 half-pints — an average of 2 pounds per pint.

QUALITY:
Select only brightly colored, small- to medium-size domestic mushrooms with short stems, tight veils (unopened caps), and no discoloration.

***CAUTION. Do NOT can wild mushrooms.***

PROCEDURE:
Trim stems and discolored parts. Soak mushrooms in cold water for 10 minutes to remove dirt. Wash in clean water. Leave small mushrooms whole; cut large ones. Cover with water and boil 5 minutes. Fill jars with hot mushrooms, leaving 1 inch of headspace. Add ½ teaspoon of salt per pint to the jar, if desired. For better color, add 1/8 teaspoon of ascorbic acid powder or a crushed 500-milligram tablet of vitamin C to each jar. Add fresh hot water, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process half-pints or pints for 45 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process half-pints or pints for 45 minutes at 15 pounds of pressure.

# Okra

QUANTITY:
An average of 11 pounds of okra is needed per canner load of 7 quarts; an average of 7 pounds is needed per canner load of 9 pints. A bushel weighs 26 pounds and yields 16 to 18 quarts—an average of 1½ pounds per quart.

QUALITY:
Select young, tender pods. Remove and discard diseased and rust-spotted pods.

PROCEDURE:
Wash pods and trim ends. Leave whole or cut into 1-inch pieces. Cover with hot water. Boil 2 minutes and drain. Fill jars with hot okra and cooking liquid, leaving 1 inch of headspace. Add 1 teaspoon of salt per quart to the jar, if desired. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 25 minutes or quarts for 40 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process pints for 25 minutes or quarts for 40 minutes at 15 pounds of pressure.

# Peas, green or English, *shelled*

It is recommended that sugar snap and Chinese edible pods be frozen for best quality.

QUANTITY:
An average of 31½ pounds of peas (in pods) is needed per canner load of 7quarts; an average of 20 pounds is needed per canner load of 9 pints. A bushel (in pods) weighs 30 pounds and yields 5 to 10 quarts—an average of 4½ pounds per quart.

QUALITY:
Select filled pods containing young, tender, sweet peas. Discard diseased pods.

PROCEDURE:
Shell and wash peas. Add 1 teaspoon of salt per quart to the jar, if desired.

Hot pack—Cover peas with boiling water. Boil 2 minutes. Fill jars loosely with hot peas. Add cooking liquid, leaving 1 inch of headspace.

Raw pack—Fill jars with raw peas. Add boiling water, leaving 1 inch of headspace. Do not shake or press down peas. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot or Raw Pack: process pints or quarts for 40 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot or Raw Pack: process pints or quarts for 40 minutes at 15 pounds of pressure.

# Peppers, hot or sweet, *including chiles, jalapeno & pimiento*

QUANTITY:
An average of 9 pounds of peppers is needed per canner load of 9 pints. A bushel weighs 25 pounds and yields 20 to 30 pints—an average of 1 pound per pint.

QUALITY:
Select firm yellow, green, or red peppers. Do not use soft or diseased peppers.

PROCEDURE:
Select your favorite pepper(s).

***CAUTION: If you choose hot peppers, wear plastic gloves while handling them, or wash hands thoroughly with soap and water before touching your face.***

Wash peppers. Remove cores and seeds. Slash two or four slits in each pepper and either blanch in boiling water or blister using one of the following methods:

*Oven or broiler method*: Place peppers in a hot oven (400°F) or under broiler for 6 to 8 minutes until skins blister.

*Range-top method*: Cover hot gas or electric burner with heavy wire mesh. Place peppers on burner for several minutes until skins blister.

Place peppers in a pan and cover with a damp cloth. This will make peeling the peppers easier. After several minutes, peel each pepper. Flatten whole peppers. Quarter large peppers. Add ½ teaspoon of salt per pint to the jar, if desired. Fill

jars loosely with peppers and add fresh boiling water, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Raw Pack: process half-pints or pints for 35 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Raw Pack: process half-pints or pints for 35 minutes at 15 pounds of pressure.

# Potatoes, sweet, *pieces or whole*

It is not recommended to dry-pack sweet potatoes.

QUANTITY:
An average of 17½ pounds of sweet potatoes is needed per canner load of 7 quarts; an average of 11 pounds is needed per canner load of 9 pints. A bushel weighs 50 pounds and yields 17 to 25 quarts—an average of 2½ pounds per quart.

QUALITY:
Choose small- to medium-size potatoes. They should be mature but not too fibrous. Can within 1 to 2 months after harvest.

PROCEDURE:
Wash potatoes and boil or steam until partially soft, 15 to 20 minutes. Remove skins. Cut medium potatoes, if needed, so that pieces are uniform in size.

***CAUTION. Do NOT mash or puree pieces.***

Fill jars, leaving 1 inch of headspace. Add 1 teaspoon of salt per quart to the jar, if desired. Cover with fresh boiling water or syrup,* leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 65 minutes or quarts for 90 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process pints for 65 minutes or quarts for 90 minutes at 15 pounds of pressure.

***Syrup**

| **For 9-pint Load** | | |
|---|---|---|
| | Cups Water | Cups Sugar |
| Light | 5¾ | 1½ |
| Medium | 5¼ | 2¼ |
| **For 7-quart Load** | | |
| Light | 9 | 2¼ |
| Medium | 8¼ | 3¾ |

Combine water and sugar. Bring to a boil.

# Potatoes, white, *cubed or whole*

QUANTITY:
An average of 35 pounds of potatoes is needed per canner load of 7 quarts; an average of 22½ pounds is needed per canner load of 9 pints. A bag weighs 50 pounds and yields 8 to 12 quarts —an average of 5 pounds per quart.

QUALITY:
Select small- to medium-size mature potatoes of ideal quality for cooking. Tubers stored below 45°F may discolor when canned. Choose potatoes 1 to 2 inches in diameter if they are to be packed whole.

PROCEDURE:
Wash and peel potatoes. If desired, cut into ½-inch cubes. Place in ascorbic acid solution to prevent darkening.* Drain. Cook 2 minutes in boiling water and drain again. For whole potatoes, boil 10 minutes and drain. Add 1 teaspoon of salt per quart to the jar, if desired. Fill jars with hot potatoes and fresh hot water, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 35 minutes or quarts for 40 minutes at 12 pounds of pressure.
- Weighted-gauge Pressure Canner—Hot Pack: process pints for 35 minutes or quarts for 40 minutes at 15 pounds of pressure.

*Use 1 teaspoon of pure ascorbic acid powder dissolved in 1 gallon of water or six 500-milligram ascorbic acid tablets dissolved in 1 gallon of water.

# Pumpkins & Winter Squash, *cubed*

QUANTITY:
An average of 16 pounds of pumpkin or winter squash is needed per canner load of 7 quarts; an average of 10 pounds is needed per canner load of 9 pints—an average of 2¼ pounds per quart.

QUALITY:
Pumpkins and squash should have a hard rind and stringless, mature pulp of ideal quality for cooking fresh. Small pumpkins (sugar or pie varieties) make better products.

PROCEDURE:
Wash, remove seeds, cut into 1-inch wide slices; peel. Cut flesh into 1-inch cubes. Boil 2 minutes in water.

***CAUTION: Do NOT mash or puree.***

Fill jars with cubes and cooking liquid, leaving 1 inch of headspace. Adjust lids and process. For making pies, drain jars and strain or sieve cubes.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 55 minutes or quarts for 90 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process pints for 55 minutes or quarts for 90 minutes at 15 pounds of pressure.

# Soups, vegetable, dried bean or pea, *with meat or poultry*

PROCEDURE:
Select, wash, and prepare vegetables, meat, and poultry as described in this guide, in FCS3-327, *Selecting, Preparing, and Canning Tomatoes and Tomato Products*, and in FCS3-329, *Preparing and Canning Poultry, Red Meat, and Fish.* Cover meat or poultry with water and cook until tender. Cool meat and remove bones. Cook vegetables. Add 3 cups of water to each cup of dried beans or peas. Boil 2 minutes, remove from heat, soak 1 hour, and reheat to a boil. Drain and combine with meat broth, tomatoes, or water to cover. Boil 5 minutes.

***CAUTION: Do NOT thicken***

Salt to taste, if desired. Fill jars half-way with solid mixture. Add liquid, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 60 minutes or quarts for 75 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process pints for 60 minutes or quarts for 75 minutes at 15 pounds of pressure.

# Spinach & Other Greens

QUANTITY:
An average of 28 pounds of greens is needed per canner load of 7 quarts; an average of 18 pounds is needed per canner load of 9 pints. A bushel weighs 18 pounds and yields 3 to 9 quarts—an average of 4 pounds per quart.

QUALITY:
Can only freshly harvested greens. Discard any wilted, discolored, diseased, or insect-damaged leaves. Leaves should be tender and attractive in color.

PROCEDURE:
Wash only a small amount of greens at one time. Drain water and continue rinsing until water is clear and free of grit. Cut out tough stems and midribs. Place 1 pound of greens at a time in a cheesecloth bag or blancher basket. Steam 3 to 5 minutes or until well

wilted. Add ½ teaspoon of salt per quart to the jar, if desired. Fill jars loosely with greens. Add fresh boiling water, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 70 minutes or quarts for 90 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process pints for 70 minutes or quarts for 90 minutes at 15 pounds of pressure.

## Squash, winter, *cubed*

Prepare and process according to instructions for "Pumpkin & Winter Squash, cubed," on page 10 of this guide.

## Succotash

**15 pounds unhusked sweet corn or 3 quarts cut whole kernel corn.**

**14 pounds mature green podded lima beans or 4 quarts shelled lima beans**

**2 quarts crushed or whole tomatoes (optional)**

YIELD: 7 quarts.

PROCEDURE:
Wash and prepare fresh produce as described for each vegetable in this guide and in FCS3-327, *Selecting, Preparing, and Canning Tomatoes and Tomato Products*.

Hot pack—Combine all prepared vegetables in a large kettle. Add water to cover. Boil gently for 5 minutes. Add 1 teaspoon of salt per quart to the jar, if desired. Fill jars with pieces and cooking liquid, leaving 1 inch of headspace.

Raw pack—Fill jars with equal parts of all prepared vegetables, leaving 1 inch of headspace. Do not shake or press down pieces. Add 1 teaspoon of salt per quart to the jar, if desired. Add fresh boiling water, leaving 1 inch of headspace. Adjust lids and process.

PROCESSING TIME:
- *Dial-gauge Pressure Canner*—Hot Pack: process pints for 60 minutes or quarts for 85 minutes at 12 pounds of pressure.
- *Weighted-gauge Pressure Canner*—Hot Pack: process pints for 60 minutes or quarts for 85 minutes at 15 pounds of pressure.

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